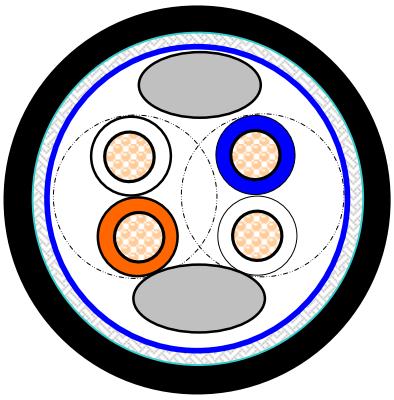
STANDARDS

- ISO/IEC 11801 2nd Edition (September 2002) and ISO/IEC 24702
- EN 50173 – 1 (November 2002)
- TIA/EIA-568-B.2 (May 2001)

CABLE CONSTRUCTION



Conductor	
Material	Stranded PACW
Construction	7X0.16 mm (26 AWG)
Insulation	
Material	PP
Diameter	0.98 mm +/- 0.05
Pair	
Pair	2 twisted insulated conductors
Number of pairs	2 all twisted together, left hand lay
Colour code pair 1	White / Blue & Blue
Colour code pair 2	White / Orange & Orange
Filler	PP
Tape (optional)	
Material	Polyester tape
Foil-Screen	
Material	Al/Polyester (Al side outside)
Braided Screen:	
Material	Tinned copper
Coverage	>85%

Sheath:

Material	PVC oil resistant
Diameter	6.0 +/- 0.2 mm
Minimum wall thickness	0.8 mm
Colour	Black

ELECTRICAL CHARACTERISTICS

Low frequency and D.C.

D.C. resistance conductor	< 140 Ω/km
Resistance unbalance	< 2 %
D.C. insulation resistance	> 5000 MΩ.km
Dielectric strength cond. – cond. (2 sec.)	2.5 kV D.C.
Mutual capacitance	< 56 nF/km
Capacitance unbalance	< 1600 pF/km

High frequency

Velocity of propagation @ 4 – 100 MHz	≥ 0.6 c
Skew @ 1 – 100 MHz	≤ 40 ns/100m
Propagation delay @ 1 – 100 MHz	≤ 534 + 36/Vf ns/100m
Mean characteristic impedance (Zcm) @ 100 MHz	100 ± 5 Ω
Input impedance 1-100MHz	100 ± 15 Ω

Frequency	Insertion loss dB/100m (max)	NEXT (dB)	ELFEXT (dB)	Return Loss (dB)
0.772	-	67		19.4
1	3.2	65.3	63.8	20
4	6.0	56.3	51.8	23
10	9.5	50.3	43.8	25
16	12.1	47.2	39.7	25
20	13.6	45.8	37.8	25
25	15.3	44.3	35.8	24.3
31.25	17.1	42.9	33.9	23.6
62.5	24.8	38.3	27.9	21.5
100	32	35.3	23.8	20.1

MECHANICAL CHARACTERISTICS

Elongation at break conductor	≥ 10 %
Elongation at break insulation	≥ 100 %
Elongation at break sheath	≥ 100 %
Tensile strength sheath	≥15 Mpa

ENVIRONMENTAL AND OVERALL CHARACTERISTICS

Maximum operating voltage	450 V D.C. and 300 V A.C.
Maximum continuous current per conductor (@25°C)	1.1 A rms
Oil resistant acc	IEC 60811-2-1
Maximum pulling tension	40 N
Minimum setting/bending radius	30 / 60 mm
Temperature range during installation	0 / +50 °C
Temperature range during operation	-20 / +80 °C
Flame propagation	IEC 60332-1

Belden CDT believes this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.